ANTIMICROBIAL RESISTANCE SUMMIT

Preventing an antibiotic apocalypse

March 26th 2019 London

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INTRODUCTION

ANTIMICROBIAL RESISTANCE

Preventing an antibiotic apocalypse

March 26th, 2019 • BMA, London

"Enough time has been wasted issuing warnings about antibiotic resistance. The moment has come to do something about it" - The Economist

The world is facing an imminent crisis of antimicrobial resistance (AMR). A growing range of disease-causing bacteria are proving difficult to treat; some are no longer treatable, even with the last line of antibiotic defences. In a classic case of market failure, ageing antibiotics that are increasingly less effective are not being replaced by new ones. Meanwhile resistance is accelerating through the misuse and abuse of antibiotics—in humans, animals and the environment. The cost of inaction is great. The risk of returning to a pre-antibiotic era, as resistant infections become more common and more life-threatening, is very real.

The issue has wriggled its way onto the crowded global health-security agenda, in the G20, and in the form of a special declaration on AMR at the UN General Assembly in September 2016, promising new urgency and coordinated action. Modest progress has been achieved since then. Yet many working in the field of AMR fear this global call to action is dissipating and falling well short of its aims. Political will is fading.

The challenges are multidimensional. Poor awareness among the public, policymakers and even health professionals remains a major obstacle to reducing unnecessary use of antibiotics and changing behaviours. There is a lack of broad-based and effective advocacy. The pipeline for new antibiotics is worryingly narrow, and progress in finding incentives to nudge pharmaceutical companies back to developing new drugs has stalled; some firms have even withdrawn from the field. A widespread lack of data on the scale and human and economic impacts of AMR hinders effective responses.

Such challenges demand wide-reaching policy interventions, coordinated local and global responses, changes in market dynamics and incentives, and significant shifts in behaviour.

The Antimicrobial Resistance Summit asks why the global call to action on such a critical public good is now sputtering, and how renewed energy and momentum might be unlocked in the global fight against AMR. We ask how new voices can help broaden the AMR cause—from responsible investment and retailing, to environmental groups and a wider universe of advocates. We ask for action.

Moderators

- Charles Goddard, editorial director, global initiatives, The Economist Group
- Tom Standage, deputy editor, The Economist
- Elizabeth Sukkar, editor, Thought Leadership, The Economist Group
- Slavea Chankova, healthcare correspondent, The Economist



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SPEAKERS

OUR EXPERT SPEAKERS INCLUDE

- Sally Davies, chief medical officer and chief medical officer, Government of the United Kingdom
- Marc Sprenger, director, antimicrobial resistance secretariat, World Health
 Organisation
- David Heymann, head, centre for global health security, Chatham House
- Jayasree lyer, executive director, Access to Medicine Foundation
- Timothy Jinks, head, Drug Resistant Infections, Wellcome Trust
- Maryn Mckenna, journalist and author, 'Plucked! The Truth about Chicken'
- Jean Patel, science team lead, antibiotic resistance co-ordination and strategy, CDC
- Pol Vandenbroucke, chief medical officer, hospital business, Pfizer
 Biopharmaceuticals Group
- Zamin Iqbal, research group leader, European Bioinformatics Institute
- Allan Coukell, senior director, health programs, The Pew Charitable Trusts
- Iruka Okeke, professor, University of Ibadan
- Kevin Outterson, executive director and principal investigator, Carb X
- Dilip Nathwani, director, Academic Health Sciences Partnership, Tayside
- · Anand Anandkumar, chief executive and managing director, Bugworks
- Christopher Fearne, minister for health and deputy prime minister, Malta
- Clare Chandler, director, antimicrobial resistance centre, London School of Hygiene
 and Tropical Medicine
- Manica Balasegaram, executive director, GARDP, DNDi
- · Nobuko Ichikawa, senior environmental advisor, EBRD



SPEAKERS

OUR EXPERT SPEAKERS INCLUDE

- Martin Seychell, deputy director-general, Directorate-General for Health and Food
 Safety (DG SANTE)
- · Jay Gogtay, chief medical officer, Cipla
- Harshika Sarbajna, global head of anti-infectives, Sandoz
- Lucicia Ditu, executive director, Stop TB Partnership
- Adrian Thomas, vice-president, global public health, Johnson & Johnson
- Vanessa Candeias, head, shaping the future of health, World Economic Forum
- David Salisbury, former director of immunisation, Department of Health, London
- Wilson Mok, head of policy, Gavi, The Vaccine Alliance
- Philip Howard, president, British Society for Antimicrobial Chemotherapy
- Danuta Cichocka, chief executive, Resistell
- Kristina Lagerstedt, chief executive, 1928 Diagnostics
- Jesús Rueda Rodríguez, director international affairs, MedTech Europe
- Oliver van Hecke, Clinical lecturer, department of primary care health sciences,
 University of Oxford
- Keiji Fukuda, director and clinical professor, school of public health, Li Ka Shing faculty
 of medicine, The University of Hong Kong
- Mandeep Dhaliwal, director, HIV health and development team, UNDP
- Mark Pearson, deputy director, directorate for employment, labour and social affairs,
 OECD



08.30 CHAIRMAN'S OPENING REMARKS

09.00 KEYNOTE INTERVIEW

 Sally Davies, chief medical officer and chief medical officer, Government of the United Kingdom

09.20 KEYNOTE PANEL: THE GLOBAL CALL TO ACTION

A persistent concern among those leading the charge against AMR is that the energy and momentum around the global call to action, so palpable following the UNGA special declaration in September 2016, are faltering and political will is fading. Where does the global call to action go from here?

- •How can campaigners translate rhetoric into action?
- •How can national health systems complement supranational incentives?
- •How can we avoid duplicating efforts?
- Marc Sprenger, director, antimicrobial resistance secretariat, World Health Organisation
- David Heymann, head, centre for global health security, Chatham House
- Jayasree lyer, executive director, Access to Medicine Foundation
- Timothy Jinks, head, Drug Resistant Infections, Wellcome Trust

10.05 FIRESIDE CHAT

Maryn Mckenna, journalist and author, 'Plucked! The Truth about Chicken'

10.20 PANEL: BETTER DATA, BETTER KNOWLEDGE?

New initiatives such as the Global Antimicrobial Resistance Surveillance System (GLASS) aim to gradually build a picture of resistant bugs across the world, yet currently there is a lack of credible information and analysis to guide policymaking on AMR. We know little about how many people die from or survive AMR-related episodes, how concentrated resistant genes are in the environment, and what might be the most appropriate and affordable interventions.

The paucity of data is especially acute in developing countries. How can "big data" enhance our understanding of the epidemiology of resistant organisms?

- Jean Patel, deputy director, Office of Antimicrobial Resistance, CDC
- Pol Vandenbroucke, chief medical officer, hospital business, Pfizer Biopharmaceuticals Group
- Zamin Iqbal, research group leader, **European Bioinformatics Institute**
- Allan Coukell, senior director, health programs, The Pew Charitable Trusts

11.00 **BREAK**

11.30 SPOTLIGHT: SCIENCE 101

If developing antibiotics were simple, there would be more than one or two prospects in the pipeline, even for the most resistant Gram-negative bacterial infections. Why is the science so hard, and what prospective antibiotics look most promising?

Iruka Okeke, professor, University of Ibadan

11.50 PANEL: THE (PRIVATE-SECTOR) INVESTMENT CONUNDRUM

If new classes of antibiotics are to be used sparingly or squirrelled away for last use, why invest in their development? This conundrum—in which the old model of volume-based reimbursement is failing—sits at the heart of why pharma companies are no longer interested in investing in antibiotics, and why the pipeline is so weak. Several initiatives have sought to identify "pull" incentives that will reward successful R&D outcomes and thereby persuade pharma to re-engage in drug development. So far, industry remains unconvinced, and governments are reluctant. Yet solving this market failure is a matter of urgency. What incentives show the most potential, and can they be made to work?

- Kevin Outterson, executive director and principal investigator, Carb X
- Dilip Nathwani, director, Academic Health Sciences Partnership, Tayside
- Anand Anandkumar, chief executive and managing director, Bugworks



12.30 PANEL: THE (PUBLIC-SECTOR) INVESTMENT CONUNDRUM

With pharma companies unable or unwilling to invest in the long-term sustainable financing of antibiotic and antimicrobial R&D, governments may need to play a greater role. Some have suggested we should regard measures to reduce AMR similarly to infrastructure investment: as a critical public good worthy of public investment.

- What other government-led approaches might prove sustainable?
- How can governments form a "coalition of the willing" to find long-term development solutions? What might the obstacles be?
- What role can large developing countries such as China and India play?
- Christopher Fearne, minister for health and deputy prime minister, Malta
- Clare Chandler, director, antimicrobial resistance centre, London School of Hygiene and Tropical Medicine
- Manica Balasegaram, executive director, GARDP, DNDi
- Nobuko Ichikawa, senior environmental advisor, EBRD

12.50 PANEL: OUT OF THE SHADOWS

Poor-quality and counterfeit drugs can increase infection rates, undermine data collection on AMR and reduce the incentive for investment in new medicines. Counterfeits expose pathogens to sub-therapeutic doses of medicine and thereby fuel AMR. This problem is particularly acute in developing countries. These countries are already under the spotlight for offering less-controlled access to antibiotics. How can surveillance of the supply chain be improved to stop substandard medicines reaching the market?

- Martin Seychell, deputy director-general, Directorate-General for Health and Food Safety (DG SANTE)
- Jay Gogtay, chief medical officer, Cipla
- Harshika Sarbajna, global head of anti-infectives, Sandoz

01.30 LUNCH



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o2.00 Lunch panel: Drug-resistant TB Sponsored by Johnson & Johnson

Today, DR-TB is the leading contributor to AMR, causing approximately one-third of all AMR-related deaths. New innovations – including novel rapid diagnostic tests and a shorter, more effective DR-TB treatment regimen – have the potential to turn the tide. To do so, requires overcoming barriers like funding gaps, the slow uptake of new tools, missing data, and a lack of patient empowerment. The economic imperative to act now is clear. DR-TB comes at a heavy cost to patients, their families and entire economies. Every year in fact, DR-TB related deaths cost the global economy at least \$14 billion in future loss of GDP. How can we translate this investment case into global action, in order to change the trajectory of this growing public health crisis?

- Lucicia Ditu, executive director, Stop TB Partnership
- Adrian Thomas, vice-president, global public health, Johnson & Johnson
- Vanessa Candeias, head, shaping the future of health, World Economic Forum

03.00 Strategy session I: Vaccines Sponsored by Pfizer

Vaccines are an important defence against infectious diseases. Yet vaccine R&D lags behind that for drugs. This affects the pipeline: there are currently few licensed vaccines for the bacteria that are considered urgent AMR threats. How can we change this? What is the role of vaccines in the wider management of AMR for public health?

- David Salisbury, former director of immunisation, Department of Health,
 London
- Wilson Mok, head of policy, Gavi, The Vaccine Alliance
- Philip Howard, president, **British Society for Antimicrobial Chemotherapy**

03.00 Strategy session II: Diagnostics

In the United States, one antibiotic prescription in three is unnecessary, according to the Centres for Disease Control. Better diagnostics that help identify quickly whether an infection is bacterial (and therefore treatable by antibiotics) will be a key tool in ensuring that antibiotics are used only when they are needed.

What progress is being made in discovering new diagnostic tools? What are the right incentives to accelerate their development, and what are the hurdles to getting these in place?

- Danuta Cichocka, chief executive, Resistell
- Kristina Lagerstedt, chief executive, 1928 Diagnostics
- Jesús Rueda Rodríguez, director international affairs, MedTech Europe
- Oliver van Hecke, Clinical lecturer, department of primary care health sciences, University of Oxford

04.00 PANEL: MAKING IT MAINSTREAM

If new antibiotics and other antimicrobial solutions are not developed soon, and in a sustained way, AMR could be a larger killer than cancer by 2050. But the general public remains unaware of this, as do many of those responsible for prescribing antimicrobials. Although there are signs of new groups joining the fray, AMR is far from having the advocacy it needs to move up the global health-security agenda. What can global-health campaigns on issues like HIV/AIDS, TB, malaria and non-communicable diseases such as diabetes teach us about developing a more successful approach to raising awareness of AMR? How might advocates cast a wider net? And can advocacy make a difference anyway?

- Keiji Fukuda, director and clinical professor, school of public health, Li Ka Shing faculty of medicine, The University of Hong Kong
- Mandeep Dhaliwal, director, HIV health and development team, UNDP
- Mark Pearson, deputy director, directorate for employment, labour and social affairs, OECD

04.40 ASK THE ECONOMIST: WHERE TO NEXT?

In this closing session, a panel of Economist editors will discuss the day's findings, and where and how to act and invest to ensure continued progress on fighting AMR.

05.00 CONFERENCE CLOSE



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MORE INFORMATION

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